

Serial No. 10/767,835
Atty. Doc. No. 2001P13904WOUS

Amendments To The Claims:

1. (currently amended) A seal element for sealing a gap between a first component and a second component spaced apart from each other, the first component having a first surface and the second component having an opposing second surface, the seal element comprising:
 - a support structure having at least two contacting members; and
 - a sealing structure comprising a ~~metallic~~-fibrous web and covering at least partially the support structure, wherein each contacting member serves for putting a portion of the sealing structure in contact with one of the surfaces and being capable of following a deformation and/or movement of said surface and wherein the support structure has a frame portion to which the contacting members is connected via a branch portion extending away from the frame portion.
2. (previously presented) A seal element for sealing a gap between a first component and a second component spaced apart from each other, the first component having a first surface and the second component having an opposing second surface, the seal element comprising:
 - a support structure having at least two contacting members; and
 - a sealing structure covering at least partially the support structure, wherein each contacting member serves for putting a portion of the sealing structure in contact with one of the surfaces and being capable of following a deformation and/or movement of said surface and wherein the support structure has a frame portion to which the contacting members is connected via a branch portion extending away from the frame portion, wherein the sealing structure comprises a web having metallic and/or ceramic fibres.
3. (previously presented) The seal element according to claim 2, wherein the sealing structure comprises a ceramic fibre fabric, a ceramic fibre tape, a ceramic fibre sleeving or a ceramic fibre mat.
4. (previously presented) The seal element according to claim 2, wherein the sealing structure comprises ceramic fibres consisting of ZrO₂, SiO₂ and/or Al₂O₃.

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5. (previously presented) The seal element according to claim 2, wherein the sealing structure comprises a metallic fibre fabric, a metallic fibre tape, a metallic fibre sleeving or a metallic fibre mat.

6. (previously presented) The seal element according to claim 2, wherein the sealing structure comprises metallic fibres consisting of a superalloy, in particular a nickel-based, a cobalt-based or ironbased superalloy.

7. (previously presented) The seal element according to claim 2, wherein the sealing structure is loosely connected to said support structure.

8. (previously presented) The seal element according to claim 2, wherein the support structure consists of a metal, in particular a sheet metal.

9. (previously presented) The seal element according to claim 2, wherein the support structure has a curved form, in particular is U-shaped, open-ring shaped or ring-shaped.

10. (previously presented) The seal element according to claim 2, wherein the branch portion and the contacting member are elastically deformable.

11. (previously presented) The seal element according to claim 2, wherein the support structure has at least two branch portions with different length.

12. (previously presented) The seal element according to claim 11, wherein the branch portions form together with a middle portion a two-arm spring, which spring is fastened to said frame portion at said middle portion.

13. (previously presented) The seal element according to claim 2, further comprising a tightening member for tightening said sealing structure between two adjacent contacting members.

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14. (previously presented) The seal element according to claim 13, wherein said tightening member comprises a spring member.

15. (previously presented) The seal element according to claim 2 for the use in a hot gas chamber having a hot-gas flow region, the hot gas chamber comprising:

a wall structure surrounding the hot-gas flow region and comprising the second component having the second surface, the first component being attached to said wall structure (13) and having the first surface, which is directed to the wall structure, wherein the gap is formed between the first component and the second component, the sealing structure being in contact with the second surface of the second component and with the first surface of the first component thereby sealing the gap.

16. (previously presented) The seal element according to claim 15, wherein the hot gas chamber is a part of a combustion turbine.

17. (previously presented) The seal element according to claim 15, wherein the first component is a heat shield element of a combustion chamber or a shroud element of a turbine section.

18. (previously presented) The seal element according to claim 2 for the use in a combustion turbine, the combustion turbine comprising:

a burner;

a turbine section having a turbine inlet for hot gas to enter the turbine section; and

a duct connecting the burner to the turbine section for hot gas to flow from said burner to said turbine section, whereby the first surface is formed by the turbine inlet and the second surface by the duct in the vicinity of the turbine inlet, with the gap between the first surface and the second surface sealed by the seal element.

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19. (currently amended) A combustion turbine, comprising:
a hot gas chamber having a hot-gas flow region;
a wall structure surrounding the hot-gas flow region and comprising at least one second component having a second surface directed to the hot-gas flow region;
at least one first component being attached to the wall structure and having a first surface, which is directed to the wall structure;
a gap formed between the first component and the second component;
a seal element for sealing said gap the seal element comprising:
a support structure;
a sealing structure, wherein the sealing structure is a fibrous sleeve, covering at least partially the support structure, wherein the support structure comprises at least two contacting members, each contacting member puts a portion of the sealing structure in contact with one of the surfaces and being capable of following a deformation of the surface, wherein the support structure has a frame portion to which the contacting members is connected via a branch portion extending away from said frame portion.

20. (Canceled).

21. (previously presented) The combustion turbine according to claim 19, wherein the seal element comprises a curved frame portion from which the contacting members are spaced apart and each contacting member being connected to the frame portion via a branch portion.

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22. (currently amended) A combustion turbine, comprising:
a hot gas chamber having a hot-gas flow region;
a wall structure surrounding the hot-gas flow region and comprising at least one second component having a second surface directed to the hot-gas flow region;
at least one first component being attached to the wall structure and having a first surface, which is directed to the wall structure;
a gap formed between the first component and the second component;
a seal element for sealing said gap the seal element comprising:
a support structure; and
a sealing structure ~~covering~~ at least partially covering the support structure, wherein the support structure comprises at least two contacting members, each contacting member puts a portion of the sealing structure in contact with one of the surfaces and being capable of following a deformation of the surface, wherein the support structure has a frame portion to which the contacting members is connected via a branch portion extending away from said frame portion, wherein ~~seal element is surrounded by the sealing structure being comprises a fibrous sleeving at least partially surrounding the support structure.~~

23. (new) A seal element for sealing a gap between a first component and a second component, the first component having a first surface and the second component having a second surface separated from the first surface by the gap, the seal element comprising:

a fibrous sealing element;

a support element providing mechanical support for the fibrous sealing element across the gap between a hot gas flow region on a first side of the gap and a cooling gas region on a second side of the gap;

wherein a gas pervious property of the fibrous sealing element provides a degree of effusion cooling of the sealing element by a flow of cooling gas from the cooling gas region across the fibrous sealing element.

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24. (new) The seal element of claim 23, further comprising a tightening member urging the sealing element into close contact with the first surface and the second surface.

25. (new) The seal element of claim 23, wherein the support element comprises a means for elastically deforming to accommodate relative movement between the first and second components.